

American Chemical Society

PUBLIC, PROFESSIONAL, AND INTERNATIONAL  
COMMUNICATION DIVISION

1155 SIXTEENTH STREET, N.W.  
WASHINGTON, D.C. 20036  
Phone (202) 872-4600

Richard L. Kenyon, Director

STATINTL

April 11, 1975

EX/ I will  
provide corrected  
sheet soon.

Ray

Mr. Raymond Pardon  
Office of Soviet Affairs  
U.S. Department of State  
Room 4229 21st & C Streets, N. W.  
Washington, D. C. 20520

Dear Mr. Pardon:

Enclosed is a copy of the translation of Dr. Korneyev's letter to Dr. Kenyon dated March 26, 1975, and the data sheets for USSR research fellows, Drs. Mastihin, Savchenko and Tapilin, who propose to arrive in the U.S. at the beginning of July, 1975, for a period of six months.

You will note that the date of birth on Dr. Tapilin's data sheet is missing. We shall provide you with that information as soon as we obtain it from the Soviets. Also, there are problems with the proposed program of visits in each of the data sheets. These will be discussed by Dr. Kenyon with Professor Baldeschwieler early next week. In all probability, some of the proposed itineraries will be changed. (The itinerary of Dr. Savchenko is incomplete.) We shall inform you as soon as these itineraries are firmly established.

Sincerely yours,

Maria A. Snow  
Asst. Program Administrator

Encl.

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Chem Catal. Pilot - long term 75

Richard L. Kenyon  
American Chemical Society  
Communications Division  
1155 16th Street, N. W.  
Washington, D. C. 20036

Dear Mr. Kenyon:

The Academy of Sciences is contemplating sending the following scientists to the U.S. as trainees for the Program of Cooperation in the Field of Chemical Catalysis:

1. Dr. Vyacheslav Matveyevich Mastihin, Senior Scientist, Institute of Catalysis, Siberian Branch, Academy of Sciences, U.S.S.R. The subject of his scientific work is study of catalysts and catalytic reactions using radiospectrometry methods.
2. Dr. Valeriy Ivanovich Savchenko, Senior Scientist, Institute of Catalysis, Siberian Branch, Academy of Sciences, U.S.S.R. The subject of his scientific work is study of chemisorption and catalytic reactions on single crystal platinum using diffraction methods of slow electrons, Auger-spectroscopy and mass-spectrometry.
3. Dr. Vladimir Matveyevich Tapilin, Head, Laboratory of Quantum Chemistry, Institute of Catalysis, Siberian Branch, Academy of Sciences, U.S.S.R. The subject of his scientific work is the theory of chemical bonds on metal surfaces; dynamic theory of surface chemical reactions.

Drs. V. M. Mastihin, V. I. Savchenko and V. M. Tapilin would like to come to the U.S. at the beginning of July 1975, for a period of six months.

We would appreciate hearing from you about the acceptability of the time periods and the time of their arrival in the U.S.

Respectfully,

[s] S. G. Korneyev  
Administration Chief

Attachments: Questionnaires of Drs.

CHEMICAL CATALYSIS

Soviet-American Program of Cooperation, 1972 - 1977

QUESTIONNAIRE

For Visiting USA in Accordance With the Agreement on  
Scientific Exchange in the Field of Chemical Catalysis

Last Name, First Name, Patronymic: MASTIHN, Vyacheslav Matveyevich.

Date and place of birth: January 5, 1937, Village of Banishchi,  
L'govskiy Rayon, Kurskaya Oblast'

Education (date and school graduated from) and degree received:

Graduated from Kharkov State University, 1959  
Candidate of Chemical Sciences

Place of work and position:

Institute of Catalysis, Siberian Branch, Academy of  
Sciences, U.S.S.R., Senior Scientist

Area of specialization: Study of catalysts and catalytic processes by methods  
of magnetic radiospectroscopy

Knowledge of Foreign

Languages:

English (able to express himself)  
German (reads and translates with the use of a dictionary)

Publications (titles of major works and year of publication):

1. Study of Vanadium Catalysts for Oxidation of Sulphur Dioxide by Means of Electron Spin Resonance Method, DAN, USSR, 117,676 (1967).
2. The ESR Spectra of Vanadium Catalysts for Oxidation of Sulphur Dioxide, Kinetics and Catalysis, 11,6 (1970).
3. Chemical Polarization of Nuclei in Oxidation of Dimethyl-sulphide with Nitric Acid, DAN, USSR, 204,147 (1972).
4. Proton Chemical Polarization, Autocatalysis and Frontal Kinetics of the Oxidation of Diethyl-sulphides with Nitric Acid, Organic Magnetic Resonance, 5,343 (1973).
5. Investigation of Chemical Exchange Kinetics in - allyl - palladiumchloride - Dienes, Olefins; Reaction Kinetics and Catalysis Letters, 1,327 (1974).

Proposed field of research work and cooperation:

Study of catalysts and catalytic reactions by methods  
of radiospectroscopy.

Questionnaire - MASTIHIN

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9. Proposed program of visits:

Scientific work in the field indicated -  
Professor Robert Waughan, California Institute  
of Technology [Dept. of Chemical Engineering].  
- 5 months, 1 week;

Visit laboratory of Professor Muettert, Cornell  
University, to discuss the problem of the investigation  
of transition metal complexes.  
- 1 week;

Visit laboratory of J. Waugh, Massachusetts Institute  
of Technology, to discuss the application of radio-  
spectroscopic methods in catalysis.  
- 1 week;

Visit laboratory of Professor J. Turkevich,  
familiarization with the application of radio-  
spectroscopic methods.  
- 1 week.

10. Titles of possible  
lectures:

The study of certain oxide catalysts by means of  
electron paramagnetic resonance.

11. Proposed date of arrival and length  
of stay:

July 1975, six months

Translated by M. Snow

CHEMICAL CATALYSIS

Soviet-American Program of Cooperation, 1972 - 1977

QUESTIONNAIRE

For Visiting USA in Accordance With the Agreement on  
Scientific Exchange in the Field of Chemical Catalysis

Last name, first name, patronymic: SAVCHENKO, Valeriy Ivanovich

Year and place of birth: June 6, 1939, Leningrad

Education (date and school graduated from) and degree received:

Graduated from Lensovet Leningrad Technological  
Institute - 1962, Candidate of Chemical Sciences.

Place of work and position: Senior Scientist, Institute of Catalysis,  
Siberian Branch, USSR Academy of Sciences.

Area of specialization: Study of chemisorption and catalysis on metals.

Knowledge of foreign languages:

English (able to express himself)

German (reads and translates with the use of a dictionary)

Publications (titles of major works and year of publication):

1. Hydrogen Adsorption on Nickel. Kinetics and Catalysis, 9,I, 1968.
2. The effect of nascent hydrogen adsorption on catalytic activity of copper and gold in the reaction of deuterio-hydrogen exchange, DAN, 189, 3, 1969.
3. Study of hydrogen interaction with oxygen on the surface of platinum by means of field emission microscopy. Lecture during the V International Congress on Catalysis, USA, 1972.
4. Chemical displacement in Auger-spectrum of iron during oxygen adsorption, DAN, USSR, 208,5,1154, 1973.
5. Chemical displacement in Auger-spectra of wolfram and molybdenum during oxygen adsorption, Izvestiya, Academy of Sciences, USSR, Physical Series, 38,2,273, 1974.

Questionnaire - SAVCHENKO

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8. Proposed field of research work and cooperation:

Study of chemisorption and catalytic reactions on single-crystal platinum using diffraction methods of slow electrons, Auger-spectroscopy and mass-spectrometry.

9. Proposed program of visits (indicate scientific institutions and names of scientists with whom it would be desirable to meet, and the dates of each visit):

Discussion with Professor G. Somorjai the possibility of the application of the molecular beam method in the investigation of chemisorption and catalysis on metals. University of California, Los Angeles, California. Period of visit - 1 week.

10. Titles of possible lectures:

Kinetics of gas chemisorption on metals.

11. Proposed date of arrival and duration of visit:

July 1975, duration of visit - 6 months.

Translated by M. Snow

For Visiting USA in Accordance With the Soviet-American Cooperation in the Field of Chemical Catalysis

1. Last Name, first name, patronymic: TAPILIN, Vladimir Matveyevich.  
Year and place of birth: Khutor Chern', Znamenskiy Rayon, Kurskaya Oblast'
2. Brief scientific biography (year graduated from the university, year awarded scientific degree, location & present position):
  - 1959 - graduated from the Moscow State University, Department of Physics;
  - 1972 - Awarded scientific degree as Candidate of Physical Mathematical Sciences;
  - 1972 to present - Head, Laboratory of Quantum Chemistry, Institute of Catalysis, Siberian Branch, USSR Academy of Sciences.
4. Date of arrival and duration of scientific mission: [July] 1975, 6 months
5. Knowledge of foreign languages: English, Czech - able to express himself
6. Topic of scientific work in US: The theory of chemical bonds on metal surfaces; dynamic theory of surface chemical reactions.
7. List of scientific works (indicate year of publication, place of publication and co-authors):
  1. The effect of screening on the properties of particles adsorbed or dissolved in metal. I. Equations describing local conditions in metals. Kinetics and Catalysis, 12, 1093, 1971.
  2. II. Local conditions formed in metal by proton. Kinetics and Catalysis, 12, 1426, 1971.
  3. III. Bond energy in diatomic molecules. Kinetics and Catalysis, 13, No. 1, 1972.
  4. On the theory of fine local conditions of impure metal. Report Theses, 2nd All-Union Conference on the Theory of Solids. Moscow, 1969.
  5. Chemical displacement of tungsten and molybdenum in Auger-spectra during oxygen adsorption. Izvestiya, USSR Academy of Sciences, Physical Series, 38, 279, 1974. Co-authors - K. A. Dadayan, Yu. G. Kriger, V. I. Savchenko.

Questionnaire - TAPILIN

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6. On computation of electronic conditions of particles chemisorbed on the surface of a solid. DAN, USSR, 1974. Being printed.

8. Titles of proposed lectures: [none indicated]

9. Program of scientific work (scientific institutions desirable to visit, duration of visit in each institution, scientists to be visited and range of questions to be discussed):

California Institute of Technology, Professor W. H. Weinberg. Work on the theory of adsorption in transition metals. - 4 months.

University of California, Professor G. A. Somorjai. Theory of dynamic chemical reactions on metal surfaces based on experimental data from molecular beams.

Translated by M. Snow